REMARKS

Claims 1-28 are pending in the application. Claims 1, 2, 12, 13, 23-28 are currently amended.

The Examiner objected to the drawings under 37 CFR 1.84(p)(5) for not including certain reference signs mentioned in the specification. Accordingly, Fig. 5 is now amended to include reference signs 304, 308. The Examiner noted Fig. 6 with respect to reference signs 352, 354 and 356 and Fig. 7 with respect to reference signs 356, 360 and 362. However, reference signs 352, 354 and 356 are included in the protocol diagram of Fig. 4. Likewise, reference signs 356, 360 and 362 are included in the protocol diagram of Fig. 5. Accordingly, the specification is now amended at pages 19 and 20 to refer to Fig. 4 for reference signs 352, 354 and 356 and to Fig. 5 for reference signs 356, 360 and 362. Further, the specification has been amended at page 19 to address the reference item 424 in FIG. 7. FIGs. 6 and 7 have been amended to correct the misspelled word. Reconsideration of the drawing objections is respectfully requested in view of the amended drawings and the amended specification.

A review of background information and a summary of aspects of the present invention may be helpful. Connection data relates to the parameters used in establishing a communication session in a communications system. For example, typical parameters include communications protocol (e.g., ITU-T V.32, ITU-T V.90) and transmission rate (e.g., 28.8 Kbps, 33.6 Kbps). Connection data is both used by, and produced by, data access devices and server communications devices in a communications system.

Currently, any history of connection data must be stored at a server communications device, as data access devices do not provide a facility for connection data storage. Some existing data access devices do store minimal data, but this data is permanently stored (hardwired) in the device and not placed there by a server communications device. An example of permanently stored data on a data access device is the storage of a unique device identifier in data access devices manufactured by Conexant Systems, Inc. of Newport Beach, CA. This identifier can be accessed by a server communications device, but neither the server communications device, nor the data access device itself can store additional information (e.g., connection data history) on the data access device.

Since a history of connection data can not currently be stored on a data access device, an alternative technique is to store connection data on a server communications device. Storing connection data on server communications devices presents problems of both storage capacity and data management. Connection data history can grow quite large, with no efficient way of determining what data to keep and what data to delete when the storage capacity of a server communications device is reached. These storage capacity and data management problems prevent effective use of connection data history for configuring optimal sessions in data communications systems. Thus, an effective technique for managing connection data is required.

Accordingly, the present invention is directed to storage and retrieval of connection data in a communications system by storing connection data on a data access device. The connection information can later be retrieved and used for optimal configuration of devices in the communications system, as well as for producing statistical reports of communication system usage.

Claims 2, 4, 5, 9, 11, 13, 15, 16, 20, 22, 24, 26 and 28 were rejected under 35 USC 102(e) as being anticipated by Lechleider et al. (US6091713) (hereinafter Lechleider). The rejection is respectfully traversed.

Lechleider is directed a method and system for estimating the ability of a subscriber loop to support broadband services. In Lechleider, an end to end voiceband modem connection is established from a logic device to a remote computer over a loop. The system then uses initial voiceband negotiation information collected by the modems to estimate the performance of the subscriber loop in the ADSL band. A list of ADSL ready subscribers may then be created for those subscribers whose estimated ADSL band performance is above a threshold level (Abstract). In particular, Lechleider discloses with reference to FIG. 1:

> Although modems 103 and 113 are preferably V.34 modems, any modem which as part of its initial negotiation (screeching phase) collects information about the analog properties of the end-to-end connection such as power levels, noise levels, loss levels and far-end echo loss created by the transmission facility will be suitable. Modems use this information to determine the optimum operating conditions, in particular, the maximum data transfer rate when making an end-to-end connection. Modems also store this information in internal registers. The logic device 102 controlling the modem 103 can read the information contained in the modem 103 internal registers. Likewise computer 124 in access server 114 can read the analog information residing in modem 113's internal

> registers. The information collected by modem 103 and modem 113 determines the optimal performance, i.e., maximum data rate, of the customer's loop in the voice band. [...] Based on the information collected by modems 103 and 113 the voice band frequency response is extracted in accordance with our invention as in processor 119 in computer 120. (col. 5, line 56 - col. 6, line 6; col. 6, lines 30-33).

Thus, Lechleider discloses collecting and storing certain types of data locally, i.e., at each modem. Such data is also accessed by locally connected devices, e.g., logic device 102 reads data stored in modem 103 and computer 124 reads data stored in modem 113. The data itself that is collected, stored and read in the system of Lechleider is information about the analog properties of the end-to-end connection such as power levels, noise levels, loss levels and far-end echo loss. As such, this data is in essence a "snapshot" of the loop properties for a particular subscriber that is used by another computer 119/120 to predict ADSL band performance. There is no teaching or suggestion that data relating to prior connections between modems is stored or retrieved in the modems of Lechleider. In addition, there is no teaching or suggestion in Lechleider that prior connection data is sent from one modem to another in response to a data request.

In contrast, the present invention of claim 2, as amended, is directed to "retrieving ... in a communications system ... connection data associated with one or more prior connections between a server communications device and a data access device." The connection data is received at the server communications device from the data access device in response to a connection data request sent by the server communications device to the data access device.

Base claims 13, 24, 26 and 28 have been amended similar to amended claim 2. In view of the amendments, reconsideration of the rejection under 35 USC 102(e) is respectfully requested.

Claims 1, 12, 23, 25 and 27 were rejected under 35 USC 103(a) as being unpatentable over Eldumiati et al. (US2002/0012388) (hereinafter Eldumiati) in view of Hendel et al. (US5313582) (hereinafter Hendel). The rejection is respectfully traversed.

Eldumiati is directed to processing diagnostic and identification data in an analog modem system. Hendel relates to buffering within stations of a network.

In contrast, the present invention of claim 1, as amended, is directed to storage on a data access device of connection data sent from a server communications device. The connection data is associated with a current connection between the server communications device and the data access device. Eldumiati does not teach or suggest the steps of the protocol as claimed in claim 1. Hendel's approach of memory management is inapplicable, as it is directed to optimizing data transfers. Hendel provides no suggestion or motivation relating to storage of current connection data sent from a server communications device to a data access device.

Base claims 12, 23, 25 and 27 have been amended similar to amended claim 1. In view of the foregoing amendments, reconsideration of the rejection under 35 USC 103(a) is respectfully requested.

Claims 6, 10, 17 and 21 were rejected under 35 USC 103(a) as being unpatentable over Lechleider in view of Eldumiati and further in view of Bhatia et al. (US6118768). Claims 3 and 14 were rejected under 35 USC 103(a) as being unpatentable over Lechleider in view of Karpoff (US2001/0049740). Claims 7 and 18 were rejected under 35 USC 103(a) as being unpatentable over Lechleider in view of Yip et al. (US6374375). Claims 8 and 9 were rejected under 35 USC 103(a) as being unpatentable over Lechleider-Yip and further in view of Davis et al. (US6611563). The foregoing claims are dependent from base claims 2 or 12. Thus, the foregoing remarks apply. As such, the rejections are overcome.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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